

Development of 2002-04 Operating Budget Recommendation: Funding Objective

Action: To set a goal slightly above the benchmark median for each Kentucky institution, the staff recommends that the council approve the average of the 50th, 55th, and 60th percentiles as the funding objective for the 2002-04 operating budget recommendation.

The council, in cooperation with the institutions and the executive and legislative branches, developed a benchmark funding model for the 2000-02 operating budget recommendation. This model compared funding at Kentucky institutions to public funds of similar non-Kentucky institutions. A public funds amount (state appropriations and tuition and fees revenue) per full-time equivalent student (FTE) was calculated for each institution. A "measure of central tendency" was then used to set the 2000-02 funding objective for each Kentucky institution. A detailed description of the 2000-02 benchmark funding method was presented to the council July 30.

A "measure of central tendency" is simply a way to determine a midpoint of a group such as the benchmark institutions. A mean (average), median, or percentile are examples. For 2000-02, the 55th percentile was used to determine the funding objective. To determine the 55th percentile for a set of 20 institutions, public funds amounts per FTE are ranked in order of highest to lowest and the 11th number from the bottom of the list equals the 55th percentile ($20 \times 55\% = 11$).

For discussion purposes, the council staff calculated several measures of central tendency including the 55th percentile; mean; median; weighted average; the average of the 50th, 55th, and 60th percentiles; and the mean plus $\frac{1}{2}$ the standard deviation as shown on page 23.

The council staff has discussed various measures with representatives from the institutions, the Governor's Office for Policy and Management, and the Legislative Research Commission. The most frequent argument against using the 55th percentile measure is that it often points to a single institution. The staff recommends using an average of the 50th, 55th, and 60th percentiles to

calculate the funding objective. There are several reasons for the recommendation:

- It reflects an objective above the 'average.'
- It uses at least three institutions to determine the funding objective rather than basing the objective on a single institution.
- It does not include the "outliers" - institutions funded at high or low levels.
- It is easy to understand and explain, while most of the other measures are complex.

The council contracted with MGT of America, Inc. to survey the Kentucky and benchmark institutions to identify state funding for mandated programs having no instructional purpose and debt service. These state funds will be excluded in calculating the amount of public funds per FTE student. MGT probably will not receive a response from every institution. Thus, it is important to select a measure of central tendency that does not use every benchmark institution (such as the mean [average] or weighted average).

As agreed to in the *Points of Consensus*, the 2002-04 budget recommendation for each institution will be based on the calculated benchmark funding need or an inflationary increase, whichever is larger. Given the economic outlook for the Commonwealth, it is reasonably certain that the benchmark funding need will have to be phased in over more than one biennium. For 2000-02, the benchmark funding need was phased in over three years.

FOR DISCUSSION PURPOSES ONLY

PRELIMINARY BENCHMARK FINANCIAL ANALYSIS - PUBLIC FUNDS PER FTE STUDENT- 1998-99 IPEDS DATA CENTRAL TENDENCY CALCULATIONS

Number of Institutions	<u>EKU</u>	<u>KCTCS</u>	<u>KSU</u>	<u>Morehead</u>	<u>Murray</u>	<u>NKU</u>	<u>UK</u>	<u>LCC</u>	<u>UofL</u>	<u>WKU</u>
1	\$ 12,114	\$ 9,496	\$ 14,467	\$ 11,559	\$ 12,715	\$ 14,267	\$ 23,041	\$ 13,330	\$ 19,410	\$ 12,114
2	12,100	8,366	13,332	10,948	12,114	12,326	22,632	9,832	19,210	12,100
3	11,069	7,888	12,509	10,827	12,100	12,100	21,545	8,266	18,224	11,069
4	10,994	7,721	11,805	10,699	11,638	11,201	20,839	7,908	18,163	10,994
5	10,966	7,083	11,569	10,693	11,161	11,123	18,926	7,595	17,849	10,966
6	10,948	7,036	11,371	10,458	10,966	10,827	18,412	7,476	17,757	10,948
7	10,693	6,766	11,369	10,353	10,948	10,699	18,241	7,169	17,443	10,693
8	10,659	6,232	11,122	10,203	10,827	10,054	16,775	6,814	16,468	10,659
9	10,203	5,365	10,693	10,051	10,458	10,022	16,223	6,604	16,062	10,203
10	9,793	5,298	10,658	9,876	10,203	9,889	16,081	6,252	15,672	9,793
11	9,781		10,560	9,726	9,876	9,775	16,006	6,139	15,247	9,781
12	9,648		10,248	9,514	9,869	9,648	15,936	6,137	14,962	9,648
13	9,514		10,212	9,417	9,751	9,417	15,836	6,067	14,205	9,514
14	9,417		10,133	9,202	9,699	9,343	15,469	5,997	14,103	9,417
15	9,307		9,768	8,882	9,666	9,319	15,458	5,724	13,667	9,307
16	9,202		9,658	8,859	9,514	9,210	14,371	5,525	13,206	9,202
17	9,089		9,527	8,485	9,302	9,177	13,972	5,503		9,089
18	8,260		8,752	8,068	8,919	9,089	13,936	5,381		8,260
19	7,869		6,823	7,425	8,521	7,885	13,291	4,967		7,813
20			6,736	6,849	8,260	7,875	10,586	3,679		
Mean	\$ 10,086	\$ 7,125	\$ 10,566	\$ 9,605	\$ 10,325	\$ 10,162	\$ 16,879	\$ 6,818	\$ 16,353	\$ 10,083
Weighted Average	10,122	7,104	10,528	9,595	10,476	10,166	16,586	6,630	16,148	10,124
Median	9,793	7,060	10,609	9,801	10,040	9,832	16,044	6,196	16,265	9,793
55th Percentile	9,978	7,060	10,658	9,876	10,203	9,889	16,081	6,252	16,387	9,978
60th Percentile	10,385	7,083	10,693	10,057	10,458	10,022	16,223	6,604	17,053	10,385
Average 50th, 55th, and 60th Percentile	10,050	7,060	10,637	9,884	10,179	9,895	16,103	6,332	16,501	10,050
Standard Deviation	1,154	1,311	1,860	1,229	1,221	1,520	3,249	2,031	2,003	1,160
Mean + 1/2 SD	10,663	7,781	11,496	10,219	10,936	10,923	18,504	7,834	17,355	10,663

Note: The public funds per FTE student for each Kentucky institution is bolded.